

## STRUCTURE 119

This structure is a reinforced concrete, gated spillway with discharge controlled by a stem operated, vertical lift gate. Operation of the gate is automatically controlled so that the gate operating system opens or closes the gates in accordance with the operational criteria. The structure is located on Canal 100C, about 1000 feet west of U.S. Highway 1.

### PURPOSE

This structure maintains optimum upstream water control stages in Canal 100C; it passes the design flood (40% of the Standard Project Flood) without exceeding the upstream flood design stage, and restricts downstream flood stages and channel velocities to non-damaging levels.

### OPERATING CRITERIA:

This structure is operated under automatic control as follows:

When the headwater elevation rises to 5.4 feet, the gate begins to open;

When the headwater elevation rises or falls to elevation 4.7, the gate becomes stationary;

When the headwater elevation falls to 4.2, the gate begins to close.

The automatic operation range was lowered to 4.6 - 4.0 on 6/1/82. On 4/10/92, the design operating criteria were implemented again. The lower automatic operation range may be used during wet conditions.

### FLOOD DISCHARGE CHARACTERISTICS

|                     | Design                           | Standard Project Flood           |
|---------------------|----------------------------------|----------------------------------|
| Discharge Rate      | <u>400</u> cfs                   | <u>900</u> cfs                   |
|                     | <u>40</u> % SPF                  | <u>100</u> % SPF                 |
| Headwater Elevation | <u>4.4</u> feet                  | <u>8.0</u> feet                  |
| Tailwater Elevation | <u>3.9</u> feet                  | <u>7.0</u> feet                  |
| Type Discharge      | uncontrolled<br><u>submerged</u> | uncontrolled<br><u>submerged</u> |

### DESCRIPTION OF STRUCTURE

Type reinforced concrete, gated spillway

Weir Crest

Water Level Remote digital upstream and downstream recorder  
Gate Position Recorder Remote digital recorder

Storage West Palm Beach Field Station  
Type Stop logs  
Size and Number (per bay)  
Upstream & Downstream  
19 each 8" x 8" X 12'-2" long